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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/698,735	10/31/2003	Ravinder Prakash	CHA920030024US1	3130
23550 7590 10/29/2007 HOFFMAN WARNICK & D'ALESSANDRO, LLC 75 STATE STREET 14TH FLOOR ALBANY, NY 12207			EXAMINER KRASNIC, BERNARD	
			ART UNIT 2624	PAPER NUMBER
			MAIL DATE 10/29/2007	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/698,735	Applicant(s) PRAKASH ET AL.	
	Examiner Bernard Krasnic	Art Unit 2624	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 August 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-22 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

1. The Request for Continued Examination filed 8/28/2007 have been entered and made of record.
2. The application has pending claims 1-22.
3. Applicant's arguments with respect to claims 1-22 have been considered but are moot in view of the new ground(s) of rejection.
4. Applicant's arguments filed 8/28/2007 have been fully considered but they are not persuasive.

The Applicant alleges, "Nowhere does Tyburski or Ott teach ..." in page 8 and "Tyburski fails to teach or suggest ..." in page 9, and states respectively that Tyburski and Ott either combined or alone fail to teach or suggest "positionally synchronizing corresponding characters from different sets of transduced character information in which at least one set of transduced character information includes a string of characters having a missing or erroneously added character" because Tyburski "provides an identification signal only when both the magnetic and optical readers identify the same characters" (see, e.g., column 8, lines 4-22). The Examiner disagrees because the Applicant has referred to a different embodiment (see Fig. 5, column 8, line 4-22) than that of which the Examiner has relied upon of Tyburski in order to show that Tyburski does not teach the claimed limitations. The Examiner believes that Tyburski

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does teach the claimed limitations where Tyburski states "if the field" (e.g. account field 24 of Figure 1 is basically the Applicants claimed string of characters) "does not check, a feedback signal on line 15a is sent back to block 12 and **the magnetic signal is then substituted for the optical signal, for the character with respect to which the ambiguity occurred**" (see column 6, line 68, column 7, lines 1-3). Tyburski is clearly stating that the positionally synchronized character string (e.g. account field) is analyzed (analyzed for substitution of ambiguous characters) for the two transducers (MICR and OCR) even when ambiguity between the two sets occurs. However, Tyburski is silent in showing that such an ambiguity could be a result of a missing or extra character. Cain (US 4,523,330) is used as a secondary teaching in showing that such an ambiguity could be a result of missing characters or numbers in a MICR read (see Cain, col. 8, lines 67-69, col. 9, lines 1-2, missing characters or numbers in a MICR read as a result of dirt for example). Therefore claims 1-22 are still not allowable over the prior art because the amended limitation of "positionally synchronize corresponding characters from different sets of transduced character information in which at least one set of transduced character information includes a string of characters having a missing or erroneously added character" is taught by Tyburski in view of Ott and Cain.

Claim Rejections - 35 USC § 101

5. Claims 20-22 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. Claims 20-22 are drawn to functional descriptive material NOT claimed as residing on a computer readable medium. MPEP

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2106.IV.B.1(a) (Functional Descriptive Material) states:

"Data structures not claimed as embodied in a computer-readable medium are descriptive material per se and are not statutory because they are not capable of causing functional change in the computer."

"Such claimed data structures do not define any structural or functional interrelationships between the data structure and other claimed aspects of the invention which permit the data structure's functionality to be realized."

Claims 20-22, while defining a "program product", do not define a "computer-readable medium" and is thus non-statutory for that reasons. "A program product" can range from paper on which the program is written, to a program simply contemplated and memorized by a person. As recited in claim 20, "A program product stored on a recordable medium for facilitating character recognition" should be -- A computer-readable medium encoded with a computer program product for causing the computer to facilitate character recognition --. As recited in claims 21-22, "The program product of claim" should be -- The computer-readable medium of claim --.

"In contrast, a claimed computer-readable medium encoded with the data structure defines structural and functional interrelationships between the data structure and the computer software and hardware components which permit the data structure's functionality to be realized, and is thus statutory."
- MPEP 2106.IV.B.1(a)

Appropriate correction is required.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and

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the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 1-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tyburski et al (US 3,764,978), in view of Ott et al (US 5,754,674) and Cain (US 4,523,330).

Re Claim 1: Tyburski discloses a character recognition system (see Fig. 1, abstract, lines 1-3), comprising at least one transducer / OCR (4) and MICR (2) system for scanning printed character data and generating a plurality of sets / two sets (one for the OCR and one for the MICR) of transduced character information / output of OCR (4) and MICR (2) (see Fig. 1, abstract, lines 1-3, col. 2, lines 65-67, col. 1, lines 39-49, col. 3, lines 51-52); a position collection system / character recognition circuitry for collectively storing / computer buffer circuitry positional data / character information for each of a plurality of characters / group of characters (22, 24) in each set / two sets (one for the OCR and one for the MICR) of transduced character information (see Figs. 1 and 3, abstract, lines 1-3, col. 2, lines 20-24, col. 3, lines 41-55, col. 4, lines 55-58, the teachings "can recognize a group of characters" shows Tyburski's system recognizes the account field 24 which is shown as "786" or the amount field 22 which is shown as "000000" as a set or group or string which is essentially plurality of characters being stored collectively using the computer buffers or the character recognition circuitry [the group of characters are considered collectively], this character information is not the positional information, however Tyburski discloses this positional information silently when he explains that the "same" character is considered from both the MICR and the OCR); a character position synchronization system / synchronization circuitry that

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utilizes the positional data / character information stored / computer buffer circuitry for the plurality of characters / group of characters to positionally synchronize corresponding characters / synchronize same characters from different sets / two sets OCR and MICR of transduced character information (see Fig. 1, col. 3, lines 51-64, Tyburski uses the character information including the time delay for the synchronization circuitry as a means to wait for the positions of the characters to align in order to establish a comparison between the "same" characters) in which at least one set of transduced character information includes a string of characters having a missing or erroneously added character (see column 6, line 68, column 7, lines 1-3, Tyburski states "if the field" [e.g. account field 24 of Figure 1 is basically the Applicants claimed string of characters] "does not check, a feedback signal on line 15a is sent back to block 12 and the magnetic signal is then substituted for the optical signal, for the character with respect to which the ambiguity occurred", Tyburski is clearly stating that the positionally synchronized character string [e.g. account field] is analyzed [analyzed for substitution of ambiguous characters] for the two transducers [MICR and OCR] even when ambiguity between the two sets occurs); and a voting engine / minicomputer for receiving the positionally synchronized sets of transduced character information (see col. 4, lines 16-22, col. 1, lines 39-49, the minicomputer using the synchronized recognition signals from the OCR and the MICR, correlates the two signals and decides a best match).

However, Tyburski fails to specifically disclose or fairly suggest that the positional data is stored and used for character synchronization. Tyburski also fails to specifically disclose that the string of characters have a missing or erroneously added character.

Ott discloses storing / memory the positional data / character XY coordinate on the check (see Ott, col. 1, lines 7-12, col. 2, line 55, col. 6, lines 52-54, col. 7, lines 41-47, col. 8, lines 1-4) and using the stored data for character synchronization (Tyburski teaches synchronization).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Tyburski's system [system of recognizing either a single or a plurality of characters from a check document and synchronizing the corresponding characters so a correlation between these corresponding MICR and OCR characters may result in a decision of a best match] using Ott's teachings by including the storing of each character's corresponding positional XY coordinate data to Tyburski's position collection system and character position synchronization system in order to further enhance the verification of legibility of characters of a check document (see Ott, col. 1, lines 7-12, col. 2, line 55).

However, Tyburski as modified by Ott still fails to specifically disclose that the string of characters have a missing or erroneously added character.

Cain discloses a string of characters / MICR line 34 (see Cain, Fig. 5) having a missing character / character or numbers (see Cain, col. 8, lines 67-69, col. 9, lines 1-2, missing characters or numbers in a MICR read as a result of dirt for example).

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Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to further modify Tyburski's system, as modified by Ott, using Cain's teachings by including to Tyburski's ambiguity [as discussed in Tyburski's teachings above] the fact that the ambiguity could be a missing character of a string due to dirt in order to improve the identification of the incomplete MICR data (see Cain, col. 9, lines 12-13).

As to claim 8, the claim is the corresponding broader apparatus claim to claim 1 respectively. The discussions are addressed with regard to claim 1.

As to claim 16, the claim is the corresponding method claim to claim 1 respectively. The discussions are addressed with regard to claim 1.

As to claim 20, the claim is the corresponding means plus function claim to claim 1 respectively. The discussions are addressed with regard to claim 1.

The limitations, as recited in claim 20, "means for collectively storing" in line 3, and "means for positionally synchronizing" in line 5, invoke 35 USC 112, 6th paragraph.

Re Claim 2: Tyburski further discloses an optical character recognition (OCR) (4) transducer and a magnetic ink character recognition (MICR) (2) transducer (see Fig. 1, Abstract, lines 1-3).

Re Claim 3: Ott further discloses at least one transducer system (taught by Tyburski above) generates a plurality of sets (taught by Tyburski above) of transduced character

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information based on different gray-scale level settings / normal sensitivity and higher sensitivity (see Abstract, lines 1-4, col. 2, lines 60-68, col. 5, lines 14-19 and lines 43-44).

Re Claim 4: Ott further discloses the position information system (taught by the Tyburski and Ott combination above) generates a position collection for each character (taught by the Tyburski and Ott combination above) in the at least one set of transduced character information, wherein each position / X-Y coordinate measurement provides a distance from the character to a predetermined location on a document containing the printed character data (see Abstract, lines 6-10, col. 7, lines 36-39, col. 8, line 4, X-Y coordinate is based on seed-pixel or object or character location on an image and pixel locations tell the distance from the top left edge of a document to the pixel being considered).

Re Claim 5: Ott further discloses the predetermined location includes an edge of the document (see Abstract, lines 6-10, col. 7, lines 36-39, col. 8, line 4, X-Y coordinate is based on seed-pixel or object or character location on an image and pixel locations tell the distance from the top left edge of a document to the pixel being considered).

Re Claim 6: Ott further discloses each position measurement provides a distance from a middle point of the character to the predetermined location (see Abstract, lines 6-10, col. 7, lines 36-39, col. 8, lines 4-18, X-Y coordinate is based on seed-pixel or object or

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character location on an image and pixel locations tell the distance from the top left edge of a document to the pixel being considered which could be the middle point of the object or character).

Re Claims 7: Tyburski further discloses the character position synchronization system / synchronization circuit (6) determines if characters from different sets of transduced characters / OCR and MICR correspond to each other by matching / minicomputer the position measurement of the characters in different sets; within a predetermined tolerance (see col. 4, lines 16-22, col. 1, lines 39-49, the minicomputer using the synchronized recognition signals from the OCR and the MICR, correlates the two signals and decides a best match, the predetermined tolerance limitation is silent but a matching between two signals could only be done by some type of parameters which consider tolerance).

Re Claim 9: Tyburski further discloses at least one transducer system / OCR (4) and MICR (2) for scanning printed character data and generating the corresponding sets / two sets (one for the OCR and one for the MICR) of transduced character information / output of OCR (4) and MICR (2) (see Fig. 1, Abstract, lines 1-3, col. 2, lines 65-67, col. 1, lines 39-49, col. 3, lines 51-52).

As to claim 10, the discussions are addressed with respect to claim 3.

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Re Claim 11: Tyburski further discloses a voting engine / minicomputer for processing the corresponding sets / corresponding recognition signals (17, 18, 12a) of transduced character information (see col. 4, lines 16-22, col. 1, lines 39-49, the minicomputer using the synchronized recognition signals from the OCR and the MICR, correlates the two signals and decides a best match).

As to claims 12-15, the discussions are addressed with respect to claims 4-7.

As to claims 17-18 and 19, the discussions are addressed with respect to claims 4-5 and 7.

As to claims 21 and 22, the discussions are addressed with respect to claims 4 and 7.

The limitation, as recited in claim 22 "means for positionally synchronizing" in line 1, invokes 35 USC 112, 6th paragraph.

Conclusion

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Bernard Krasnic whose telephone number is (571) 270-1357. The examiner can normally be reached on Mon-Thur 8:00am-4:00pm and every other Friday 8:00am-3:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jingge Wu can be reached on (571) 272-7429. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Bernard Krasnic
October 24, 2007

JINGGE WU
SUPERVISORY PATENT EXAMINER

